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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,328

09/22/2005

Dan Salomonsson

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EXAMINER

PILKINGTON, JAMES

ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,328	<b>Applicant(s)</b> SALOMONSSON ET AL.	
	<b>Examiner</b> JAMES PILKINGTON	<b>Art Unit</b> 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/30/09</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Prosecution Application***

The RCE filed on 4/30/09 is acceptable and an action on the RCE follows.

### ***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Applicant states that an amendment was made with the filing of the RCE but no file is present in the case file.

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 14-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nissfolk, USP 6,125,715.

Re clms 1-5, 14-17, 19, 20 and 21, Nissfolk discloses an industrial robot having:

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- a first part (assembly 6)
- a second part (2), wherein the first part (6) and the second part (2) are arranged to be movable with respect to each other
- a first contacting/securing point (55/56) arranged on the first arm (6)
- a second contact/securing point (42) arranged on the second part (2)
- at least one cable (35) extending from the first contacting/securing point (55/56) to the second contacting/securing point (42)
- an internal cavity (made of channel covered by 37, space 49 and inside 51), wherein the first contact/securing point (55/56) and the second contact/securing point (42) are arranged in the internal cavity, and wherein an excess of cable (35) extends freely through the internal cavity from the first contacting/securing point (55/56) to the second contacting/securing point (42) such that as the first part and the second part move relative to each other, the internal cavity accommodates the excess of cable moving back and forth between slack and tension (see coil)
- wherein one of said parts [first or second] rotates or pivots about the other part [first or second] (6 rotates about connections on 2)
- wherein one of the parts (6) comprises an electric motor (drive assembly 8, C2/L40-45).
- wherein said excess of cable (35) forms an arch inside the internal cavity (a coil is a plurality of arches)

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- wherein said excess of cable (35) forms a spiral inside the internal cavity (see coil)
- wherein the first and second contact/securing points are releasable connected to the first and second parts (the cable can be removed)
- wherein the at least one cable (35) transmits electricity, an electric signal, an optic signal, or a substance (c3/L38-41)
- wherein the internal cavity is arranged in the vicinity of a joint between the first part and the second part (see Figure 3, directly above joint)

Re clm 18, Nissfork discloses all of the structure being claimed, see above. The operation of tensioning the cable is merely a process which happens upon the movement of the arm and according to MPEP 2112.02:

#### **2112.02 Process Claims**

#### **PROCESS CLAIMS — PRIOR ART DEVICE ANTICIPATES A CLAIMED PROCESS IF THE DEVICE CARRIES OUT THE PROCESS DURING NORMAL OPERATION**

Under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986) (The claims were directed to a method of enhancing color

In the case of Nissfork the tensioning of the cable happens during normal and usual operation and therefore anticipates the claim.

#### ***Claim Rejections - 35 USC § 103***

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nissfolk, USP 6,125,715.

Nissfolk discloses all of the claimed subject matter as disclosed above. Nissfolk also discloses that the excess of cable (35) extends along an inner wall of the internal cavity (inside the cavity therefore it extends along an inner wall).

Nissfolk does not disclose that the excess of cable is in an s-shape within the cavity.

It would have been an obvious to one having ordinary skill in the art at the time the invention was made to arrange the cable in an S-shape. Since the Applicant is silent to any particular criticality for the cable being in an S-shape any arrangement of the excess of cable would be an obvious matter of design choice. Such an arrangement would yield the predictable result of allowing movement in the cable which then allows movement between the two arm parts.

***Claim Rejections - 35 USC § 102 and 103***

6. Claims 8-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nissfolk '715.

Nissfolk discloses or renders obvious a method of connecting at least part of at least one cable (35) between a first part (6) and a second part (2) of an industrial robot

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which are arranged to be movable with respect to each other where said at least one cable (35) extends from a first contact/securing point (55, seal/connection to the first arm part) on the first part (6) to a second contact/securing point (40a,40b,41,42) on the second part (2) via an internal cavity (location of spiral), wherein the first contact/securing point (55) and the second contact/securing point (42) are located in the internal cavity, the method comprising connecting/securing said at least one cable to the first contact/securing point (55), moving the first and second contact/securing points into a position where they are furthest from each other (to ensure enough cable is present), extending a length of cable (35, spiral) freely through the internal cavity from the first contact/securing point (55) to the second contact/securing point (40a,40b,41,42) and connecting/securing said at least one cable releasably to the second part (2), rotating the parts to increase or decrease the tension on the cable, wherein the cable is an arch, spiral or s-shaped and extends along an inner wall of the cavity.

### ***Double Patenting***

7. Claim 19 and 20 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 1 and 17. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Response to Arguments***

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8. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection since Nissfolk is being applied differently as necessitated by the Applicant's amendment.

9. The Applicant argues that claims 19 and 20 are not substantially duplicate of claims 1 and 17 because claim 19 states that one of the points is a contact point and one of the points is a securing point.

Claim 1 states that either point can be a "contact/securing" point. This language covers the arrangement of one being a "contact" and the other being a "securing." Since the scope of claim 19 is substantially the same as that of claim 1 it is indeed a duplicate claim the only difference being a slight difference in wording, see MPEP 706.03(k).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES PILKINGTON whose telephone number is (571)272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES PILKINGTON/  
Examiner, Art Unit 3656  
6/5/09

/Richard WL Ridley/  
Supervisory Patent Examiner, Art Unit 3656